

Amendments to the Claims

Please amend the claims as follows:

1. (Currently Amended) An apparatus for synchronizing uplink and downlink transmissions in a terminal of a mobile communication system, the apparatus comprising:
 - a receiving unit receiving and converting an RF signal;
 - a processing unit recognizing a construction of uplink time slots and downlink time slots from the converted RF signal;
 - a transmitting unit transmitting a data signal;
 - a detecting unit detecting a current switching point from the converted RF signal and determining a new switching point based on the detected current switching point, ~~and~~ the recognized construction of uplink time slots and downlink time slots, and an actual signal processing time of the transmitting unit;
 - ~~a transmitting unit transmitting a data signal;~~ and
 - a switching unit switching between the receiving unit and the transmitting unit according to the new switching point,wherein the transmitting unit transmits the data signal with a variable delay based on the new switching point.
2. (Canceled)
3. (Currently Amended) The apparatus of claim 1, wherein the processing unit controls the transmitting unit to delay the ~~transmitted~~ data signal such that a transmission point of the data signal corresponds to a switching point for uplink transmission.
4. (Currently Amended) The apparatus of claim 1, wherein the transmitting unit selects ~~the~~ [[a]] the data signal to be delayed and adjusts a delay time of the data signal.

5. (Currently Amended) The apparatus of claim 1, wherein the switching unit performs switching at a variable time interval according to the new switching point.

6. (Currently Amended) The apparatus of claim 1, wherein the detecting unit controls the new switching unit to switch between the receiving unit and the transmitting unit according to the new switching points.

7. (Cancelled)

8. (Original) The apparatus of claim 1, wherein the detecting unit is hardware-based.

9. (Previously Presented) The apparatus of claim 1, wherein the detecting unit is software-based.

10. (Original) The apparatus of claim 1, wherein the mobile communication system is TDD (Time Division Duplexing)-based.

11. (Currently Amended) An apparatus for synchronizing uplink and downlink transmissions in a terminal of a mobile communication system, the apparatus comprising:

a receiver converting a received RF downlink signal to a digital signal;

a modem examining the digital signal to recognize a construction of uplink time slots and downlink time slots and generating time slot construction information;

an RF transmitter transmitting an uplink data signal;

a time slot detector examining the digital signal to detect a first switching point between uplink time slots and downlink time slots and to determine a second switching point based on the detected first switching point, and time slot construction information, and an actual signal processing time of the transmitter;

~~an RF transmitter transmitting an uplink data signal; and~~
a TDD switch switching between the receiver and transmitter according to the second switching point,
wherein the transmitter transmits the data signal with a variable delay based on the ~~new~~ second switching point.

12. (Currently Amended) The apparatus of claim 11, wherein the transmitter further comprises a variable delay unit delaying the ~~transmitted uplink~~ data signal such that a transmission point of the uplink data signal corresponds to a switching point for uplink transmission.

13. (Currently Amended) The apparatus of claim 12, wherein the modem controls the variable delay unit to delay the ~~transmitted uplink~~ data signal.

14. (Previously Presented) The apparatus of claim 12, wherein the variable delay unit selects a data signal to be delayed and adjusts a delay time of the selected signal.

15. (Previously Presented) The apparatus of claim 11, wherein the TDD switch switches at a variable time interval according to the second switching point.

16. (Original) The apparatus of claim 11, wherein the time slot detector controls the TDD switch to switch between the receiving unit and the transmitting unit.

17. (Cancelled)

18. (Original) The apparatus of claim 11, wherein the modem is a hardware modem.

19. (Original) The apparatus of claim 11, wherein the modem is a software modem.

20. (Original) The apparatus of claim 11, wherein the mobile communication system is TDD-based.

21. (Currently Amended) A method for synchronizing uplink and downlink transmissions in a terminal of a mobile communication system, the method comprising the steps of:

examining a received signal to recognize a construction of uplink time slots and downlink time slots and generating time slot construction information;

examining the received signal to detect a first switching point between downlink time slots and uplink time slots;

determining a second switching point based on the detected first switching point, the and time slot construction information, and an actual signal processing time of a transmitter;

switching between a receiver and ~~[[a]]~~ the transmitter according to the second switching point; and

transmitting a data signal with a variable delay based on the second switching point.

22. (Currently Amended) The method of claim 21 further comprising the step of:

delaying the transmitted data signal such that a transmission point of the transmitted data signal corresponds to a switching point for uplink transmission.

23. (Currently Amended) The method of claim 22, wherein the step of delaying the transmitted data signal further comprises selecting a data signal to be delayed and adjusting a delay time of the data signal.

24. (Currently Amended) The method of claim 21, wherein ~~the step of~~ examining ~~[[a]] the~~ received signal to recognize ~~[[a]] the~~ construction of uplink time slots and downlink time slots is performed by a software modem.

25. (Currently Amended) The method of claim 21, wherein ~~the step of~~ switching between ~~[[a]] the~~ receiver and transmitter further comprises switching at a variable time interval according to the second switching point.

26. (Cancelled)

27. (Currently Amended) The method of claim 21, wherein ~~the step of~~ examining ~~[[a]] the~~ received signal to recognize ~~[[a]] the~~ construction of uplink time slots and downlink time slots comprises counting the number of uplink and downlink time slots in the overall time slots of an uplink/downlink channel